

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of performing one or more of adding and removing a process in a distributed system having a plurality of processes currently operational therein, said method comprising steps of:

- (1) launching a probationary member in said distributed system;
- (2) establishing a plurality of communication paths between said probationary member and each of said plurality of processes, respectively, in said system;
- (3) evaluating at least one criterion for promoting said probationary member to a full member, based on information obtained from said probationary member by said each of said plurality of processes on said plurality of communication paths; and
- (4) performing one of promoting said probationary member to a full member and eliminating said probationary member based on the evaluation performed in step (3),

wherein at least two of said plurality of processes are performed on separate processors that communicate with each other over a computer network.

2. (Original) The method of claim 1, wherein step (3) further comprises a step of:

determining whether said at least one criterion is satisfied.

3. (Original) The method of claim 2, wherein said step (4) further comprises steps of:

promoting said probationary member to said full member in response to said at least one criterion being satisfied; and

eliminating said probationary member in response to said at least one criterion not being satisfied.

4. (Original) The method of claim 1, further comprising a step of determining whether said probationary member is replacing a mirror in said system.

5. (Original) The method of claim 4, further comprising a step of:
performing a state transfer in response to said probationary member replacing said
mirror.

6. (Currently Amended) The method of claim 1, wherein said probationary
member is replacing a first process in said system and step (4) further comprises a step of:
replacing said first process and promoting said probationary member to said full
member in a single view change in which all processes in said system are notified of said first
process being replaced simultaneously with said probationary member being promoted.

7. (Currently Amended) The method of claim 6, wherein said step of replacing
said first process and promoting said probationary member further comprises a step of:
maintaining fault tolerance during said step of replacing said first process and
promoting said probationary member,
wherein a memory image of said first process is transferred by said first process to
said probationary member and said probationary member indicates successful reception of
said memory image prior to said first process being replaced.

8. (Original) The method of claim 7, wherein said at least one criterion is
related to context information.

9. (Currently Amended) A distributed system including a plurality of processes
in communication with each other, said distributed system comprising:

- a first host capable of executing a first process of said plurality of processes;
- a second host capable of executing a second process of said plurality of processes;
- a third host capable of executing a third process of said plurality of processes;

a first communication path connecting said first and second hosts, a second
communication path connecting said first and third hosts, and a third communication path
connecting said second and third hosts; wherein

said second process is a probationary member evaluated using at least one criterion for
promoting said probationary member to a full member; and

said probationary member being either promoted to a full member or eliminated based
on the evaluation using said at least one criterion for promoting said probationary member to

a full member, said at least one criterion being obtained based on information output by said second host that is received on said first and third communication paths by said first and third hosts,

wherein at least two of said plurality of processes are performed on separate processors that communicate with each other over a computer network.

10. (Original) The distributed system of claim 9, wherein said system is operable to promote said probationary member to said full member in response to said at least one criterion being satisfied; and

said system is operable to eliminate said probationary member in response to said at least one criterion not being satisfied.

11. (Previously Presented) The distributed system of claim 9, further comprising:

a fourth host capable of executing a fourth process of said plurality of processes; wherein

said first, third and fourth processes are a fault tolerant unit in said system;

at least two of said first, third and fourth processes are mirrors; and

said probationary member is operable to replace one of said mirrors.

12. (Original) The distributed system of claim 11, wherein said fault tolerant unit is operable to maintain fault tolerance in response to said probationary member replacing one of said mirrors.

13. (Currently Amended) A computer readable medium on which is embedded a program, the program executing a method for performing one or more of adding and removing a process in a distributed system having a plurality of processes currently operational therein, said method comprising steps of

(1) launching a probationary member in said distributed system;

(2) establishing a plurality of communication paths between said probationary member and each of said plurality of processes currently operational in said distributed system;

(3) evaluating at least one criterion for promoting said probationary member to a full member, based on information obtained from said probationary member by each of said plurality of processes currently operational, respectively, by way of said plurality of communication paths; and

(4) performing one of promoting said probationary member to a full member and eliminating said probationary member based on the evaluation performed in step (3),

wherein at least two of said plurality of processes are performed on separate processors that communicate with each other over a computer network.

14. (Original) The computer readable medium of claim 13, wherein said step (3) in said method further comprises a step of:

determining whether said at least one criterion is satisfied.

15. (Original) The computer readable medium of claim 14, wherein said step (4) in said method further comprises steps of:

promoting said probationary member to said full member in response to said at least one criterion being satisfied; and

eliminating said probationary member in response to said at least one criterion not being satisfied.

16. (Original) The computer readable medium of claim 13, wherein said method further comprises a step of determining whether said probationary member is replacing a mirror in said system.

17. (Original) The computer readable medium of claim 16, wherein said method further comprises a step of:

performing a state transfer in response to said probationary member replacing said mirror.

18. (Currently Amended) The computer readable medium of claim 13, wherein said probationary member is replacing a first process in said system and step (4) in said method further comprises a step of:

replacing said first process and promoting said probationary member to said full member in a single view change in which all processes in said system are notified of said first process being replaced simultaneously with said probationary member being promoted.

19. (Currently Amended) The computer readable medium of claim 18, wherein said step of replacing said first process and promoting said probationary member further comprises a step of:

maintaining fault tolerance during said step of replacing said first process and promoting said probationary member,

wherein a memory image of said first process is transferred by said first process to said probationary member and said probationary member indicates successful reception of said memory image prior to said first process being replaced.

20. (Original) The computer readable medium of claim 19, wherein said at least one criterion is related to context information.